

Notice of Allowability

Application No.

10/800,678

Examiner

Fayez G. Assaf

Applicant(s)

SEKINE ET AL.

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the phone interview with Mr. Kasper which occurred on 8/20/2004.
2. ☒ The allowed claim(s) is/are 1-10 and 18-23.
3. ☒ The drawings filed on 16 March 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/765,373.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 3/16/2004
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 8/10/2004.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

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DETAILED ACTION

Examiner's Amendment

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Alan Kasper on 8/20/2004.

The application has been amended as follows:

In the specification:

Line 1, after "filed January 22, 2001", the following phrase has been added --, now U.S. patent 6,714,329--.

Claims 1, 8 and 18 have been amended in order to distinguish the claimed invention over the cited reference of Hattori et al. The claims have been amended as follows:

1. (amended) A hologram plate comprising an array of a transmission type of collective element holograms that diffract parallel light incident thereon at a specific wavelength and a specific incident angle in such a way that the parallel light is converged on a specific focal length position, which comprises a multilayer structure made up of a first transparent substrate, a

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hologram layer, an adhesive layer and a second transparent substrate, said second transparent substrate defining a surface in contact with a hologram photosensitive material when hologram replication is carried out, wherein said second transparent substrate has a thickness substantially double the focal length of each collective element hologram, inclusive of the thickness of said adhesive layer.

8. A process for fabricating a hologram plate comprising an array of a transmission type of collective element holograms that diffract parallel light incident thereon at a specific wavelength and a specific incident angle in such a way that the parallel light is converged on a specific focal length position, said hologram plate comprising a multilayer structure made up of a first transparent substrate, a hologram layer, an adhesive layer and a second transparent substrate, and said second transparent substrate defining a surface in contact with a hologram photosensitive material when hologram replication is carried out, said second transparent substrate has a thickness substantially double the focal length of each collective element hologram, inclusive of the thickness of said adhesive layer, wherein:

said adhesive layer comprises an ultraviolet curing adhesive agent,

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said multilayer structure, obtained by forming said hologram layer on said first transparent substrate and then superposing said second transparent substrate on said hologram layer with an uncured ultraviolet curing adhesive agent interleaved therebetween, is spun to spin an extra portion of said adhesive agent out of the periphery thereof, thereby making said adhesive layer uniform, while the rpm of

said multilayer structure is controlled to obtain a desired thickness, and

said multilayer structure is irradiated with ultraviolet radiation through said first transparent substrate or said second transparent substrate to cure said adhesive agent.

18. (amended) In a hologram plate as recited in claim 1, on the surface of the plate in contact with replication product [A]
a [hologram plate comprising] a hologram layer with interference fringes formed thereon, a first layer capable of being removed with water or a solvent, which is provided on the surface of said hologram layer or a transparent layer formed thereon, and a second layer of a curing resin capable of being cured by light or heat, which is formed on said first layer.

Claim 2 has been canceled.

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Reasons for Allowance

Claims 1-10 and 18-23 are allowable over the prior art for at least the reason that the prior art fails to teach or reasonably suggest the second transparent substrate having a thickness substantially double the focal length of each collective element hologram as set forth in the claimed combination in each independent claim.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hattori et al. (US 6,111,670): Hattori discloses an integrated hologram composed of element holograms.

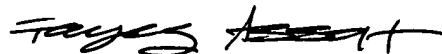
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fayez G. Assaf whose telephone number is (571) 272-2307. The examiner can normally be reached on 8-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Fayez G. Assaf
Examiner
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FA

8/21/04